

AMENDMENTS TO THE CLAIMS

Claims 1-23. (Canceled)

24. (Currently amended) A method of treating at least one flat panel display current emitter, said method comprising:

exposing at least a portion of said at least one current emitter arranged in an open area of said flat panel display to a hydrogenation process comprising plasma enhanced chemical vapor deposition process conducted in the presence of a silane gas in a reaction chamber; and

exposing at least a portion of said at least one current emitter to a nitrogen infusion process.

25. (Previously presented) A method as in claim 24, wherein said nitrogen infusion process is conducted in said reaction chamber following said plasma enhanced chemical vapor deposition process.

26. (Previously presented) A method as in claim 24, wherein said nitrogen infusion process is conducted in the presence of ammonia gas.

27. (Previously presented) A method as in claim 26, wherein said plasma enhanced chemical vapor deposition process is conducted with a silane gas flow rate of about 1000 sccm, and RF power of about 200-300 watts, a chamber pressure of about 1200 mtorr and for a period of about 5 to 10 minutes.

28. (Previously presented) A method as in claim 27, wherein said nitrogen infusion process is conducted with an ammonia gas flow rate of about 500 sccm, an RF power of about 300-400 watts, a chamber pressure of about 1200 mtorr and for a period

of about 10 to 15 minutes.

29. (Previously presented) A method as in claim 24, wherein said current emitter includes a base portion surrounded by an insulator and said current emitting portion extends from said insulator.

30. (Previously presented) A method as in claim 24, further comprising:
performing the hydrogenation process and the nitrogen infusion process on a plurality of current emitters.

31. (Previously presented) A method as in claim 30, further comprising:
sealing said plurality of current emitters in a field emission display device.

32. (Currently amended) A method of fabricating a field emission device, said method comprising:

treating the tips of the current emitters arranged in an open area of said field emission device with plasma enhanced chemical vapor deposition hydrogenation in the presence of silane gas in a chamber; and

treating said tips with nitrogen plasma while said tips are still in said chamber.

33. (Currently amended) A method of treating at least one flat panel display current emitter, said method comprising:

exposing at least a portion of said at least one current emitter arranged in an open area of said flat panel display to a hydrogenation process comprising plasma enhanced chemical vapor deposition conducted in the presence of a silane gas in a

reaction chamber, wherein said plasma enhanced chemical vapor deposition process is conducted with a silane gas flow rate of about 1000 sccm; and exposing at least a portion of said at least one current emitter to a nitrogen infusion process in said reaction chamber.

34. (Previously presented) A method as in claim 33, wherein said plasma enhanced chemical vapor deposition process is conducted with an RF power of about 200-300 watts, a chamber pressure of about 1200 mtorr, and a deposition period of about 5 to 10 minutes.

35. (Previously presented) A method as in claim 33, wherein said nitrogen infusion process comprises exposing said at least a portion of the at least one current emitter to ammonia.

36. (Previously presented) A method as in claim 35, wherein said nitrogen infusion process is conducted with an ammonia gas flow rate of about 500 sccm, an RF power of about 300-400 watts, a chamber pressure of about 1200 mtorr, and an exposure period of about 10 to 15 minutes.

37. (Currently amended) A method of fabricating a field emission device, said method comprising:

treating the tips of the current emitters arranged in an open area of said field emission device with plasma enhanced chemical vapor deposition hydrogenation in the presence of a silane gas in a chamber, wherein said plasma enhanced chemical vapor deposition process is conducted with a silane gas flow rate of about 1000 sccm, an RF power of about 200-300 watts, a chamber pressure of about 1200 mtorr, and a deposition period of about 5 to 10 minutes; and

treating said tips with nitrogen plasma while said tips are still in said chamber.

38. (Previously presented) A method as in claim 37, wherein said step of treating the tips is conducted with an ammonia gas flow rate of about 500 sccm, an RF power of about 300-400 watts, a chamber pressure of about 1200 mtorr, and an exposure period of about 10 to 15 minutes.